

08/76524

Katt 09-16-99

Set Items Description
--- ---
?s s mitochondrial() ornithine() transcarbamylase
0 S MITOCHONDRIAL
46055 ORNITHINE
5267 TRANSCARBAMYLASE
S1 0 S MITOCHONDRIAL() ORNITHINE() TRANSCARBAMYLASE
?s ornithine() transcarbamylase?
46055 ORNITHINE
5295 TRANSCARBAMYLASE?
S2 3339 ORNITHINE() TRANSCARBAMYLASE?
? s s2()mitochond?
3339 S2
330099 MITOCHOND?
S3 7 S2()MITOCHOND?
? s s2 and mitochond?
3339 S2
330099 MITOCHOND?
S4 1049 S2 AND MITOCHOND?
?s s4 and (peptide? or sequence? or signal?)
Processing
Processed 10 of 19 files ...
Completed processing all files
1049 S4
1020184 PEPTIDE?
1661745 SEQUENCE?
1451906 SIGNAL?
S5 453 S4 AND (PEPTIDE? OR SEQUENCE? OR SIGNAL?)
?s s4 and signal(peptide? or sequence?)
1049 S4
0 SIGNAL(PEPTIDE?
0 SEQUENCE?)
S6 0 S4 AND SIGNAL(PEPTIDE? OR SEQUENCE?)
?s s4 and signal()(peptide? or sequence?)
Processed 10 of 19 files ...
Processing
Completed processing all files
1049 S4
1099318 SIGNAL
1020184 PEPTIDE?
1661745 SEQUENCE?
43394 SIGNAL(W)(PEPTIDE? OR SEQUENCE?)
S7 108 S4 AND SIGNAL()(PEPTIDE? OR SEQUENCE?)
?s7 and human
Processing
Processed 10 of 19 files ...
Processing
Completed processing all files
3195942 7
10223094 HUMAN
S8 707639 7 AND HUMAN
?s s7 and human
108 S7
10223094 HUMAN
S9 17 S7 AND HUMAN
?t s9/3,k/all

9/3,K/1 (Item 1 from file: 5)
DIALOG(R) File 5:Biosis Previews(R)
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07927467 BIOSIS NO.: 000093015865
ROLE OF POLYAMINES IN THE TRANSPORT IN-VITRO OF THE PRECURSOR OF ORNITHINE TRANSCARBAMYLASE

AUTHOR: GONZALEZ-BOSCH C; MARCOTE M J; HERNANDEZ-YAGO J
AUTHOR ADDRESS: INST. INVESTIGACIONES CITOLOGICAS CAJA AHORROS VALENCIA,

AMADEO DE SABOYA 4, 46010 VALENCIA, SPAIN.

JOURNAL: BIOCHEM J 279 (3). 1991. 815-820.

FULL JOURNAL NAME: Biochemical Journal

CODEN: BIJOA

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ROLE OF POLYAMINES IN THE TRANSPORT IN-VITRO OF THE PRECURSOR OF ORNITHINE TRANSCARBAMYLASE

ABSTRACT: Polyamines induce the transport in vitro of the rat liver precursor of **ornithine transcarbamylase** (pOTC) into isolated rat liver **mitochondria**. The accumulation of this precursor at the liver of binding to the **mitochondrial** surface has allowed us to establish that polyamines are involved in the interaction of the precursor with the **mitochondrial** surface. Transport of a chimeric protein having the **signal sequence** of pOTC fused to a fragment of the cytosolic protein **human arginosuccinate lyase** was also induced by polyamines. The sensitivity of the pOTC synthesized in vitro...

...may play a role in modulating the folding of precursors to favor their binding to **mitochondria**.

DESCRIPTORS: RAT ARGINOSUCCINATE LYASE PROTEINASE LIVER **MITOCHONDRIA**
SIGNAL SEQUENCE

9/3,K/2 (Item 1 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 1999 Inst for Sci Info. All rts. reserv.

02277710 Genuine Article#: KP884 No. References: 42

Title: THE PRESEQUENCE OF RAT-LIVER ALDEHYDE DEHYDROGENASE REQUIRES THE PRESENCE OF AN ALPHA-HELIX AT ITS N-TERMINAL REGION WHICH IS STABILIZED BY THE HELIX AT ITS C-TERMINI

Author(s): WANG Y; WEINER H

Corporate Source: PURDUE UNIV,DEPT BIOCHEM,1153 BIOCHEM BLDG/W
LAFAYETTE//IN/47907; PURDUE UNIV,DEPT BIOCHEM,1153 BIOCHEM BLDG/W
LAFAYETTE//IN/47907

Journal: JOURNAL OF BIOLOGICAL CHEMISTRY, 1993, V268, N7 (MAR 5), P
4759-4765

ISSN: 0021-9258

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

Abstract: Previous nuclear magnetic resonance data showed that the conformation of the **signal peptide** of rat liver **mitochondrial** aldehyde dehydrogenase in a micelle environment contained a N-helix and a C-helix which...

...C-terminal random coil of the oxidase's presequence. Circular dichroism studies on the synthesized **signal peptides** indicated that a helix in the C-segment of aldehyde dehydrogenase **signal peptide** was needed to stabilize the N-helix. It is concluded that a stable helix in the N-terminal region is necessary for a functional **mitochondrial** presequence. This helix could be obtained from its own sequence, or from the interaction with...

...Identifiers--IMPORTED **MITOCHONDRIAL** PROTEIN; OUTER-MEMBRANE PROTEIN;
12 AMINO-ACIDS; LEADER PEPTIDE; **SIGNAL PEPTIDE**; **ORNITHINE**

TRANSCARBAMYLASE; TARGETING SEQUENCES; PRE-SEQUENCE; YEAST; PRECURSOR
Research Fronts: 91-3902 002 (VIBRATIONAL CIRCULAR-DICHROISM; SYNTHETIC
AMPHIPHILIC **SIGNAL PEPTIDES** IN LIPID MODEL MEMBRANES; PROTEIN
SECONDARY STRUCTURE; CONFORMATIONAL STABILITY)

91-0306 001 (LAC REPRESSOR IN...)

...DOMAINS; STRUCTURAL ELEMENTS)

91-0448 001 (C-JUN AP-1 ACTIVITY; FOS PROTEINS; TRANSCRIPTIONAL

ACTIVATION; HUMAN MYELOID CELLS; MOUSE FIBROBLASTS; IMMEDIATE-EARLY GENES; TUMOR PROMOTER
91-3106 001 (IDENTIFICATION OF A...)

...GDP/GTP EXCHANGE PROTEIN; EXPRESSION OF MESSENGER-RNA)
91-6980 001 (CHLOROPLAST IMPORTED PROTEINS; YEAST MITOCHONDRIAL ATP SYNTHASE; MOLECULAR-CLONING OF CDNA; THYLAKOID LUMEN; DEDUCED SEQUENCE; NUCLEAR GENE)

9/3,K/3 (Item 2 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 1999 Inst for Sci Info. All rts. reserv.

01321230 Genuine Article#: GP155 No. References: 36

Title: ROLE OF POLYAMINES IN THE TRANSPORT INVITRO OF THE PRECURSOR OF ORNITHINE TRANSCARBAMYLASE

Author(s): GONZALEZBOSCH C; MARCOTE MJ; HERNANDEZYAGO J
Corporate Source: CSIC,INST INVEST CITOL CAJA AHORROS VALENCIA,AMADEO SABOYA 4/E-46010 VALENCIA//SPAIN/; CSIC,INST INVEST CITOL CAJA AHORROS VALENCIA,AMADEO SABOYA 4/E-46010 VALENCIA//SPAIN/
Journal: BIOCHEMICAL JOURNAL, 1991, V279, NOV, P815-820
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

Title: ROLE OF POLYAMINES IN THE TRANSPORT INVITRO OF THE PRECURSOR OF ORNITHINE TRANSCARBAMYLASE

Abstract: Polyamines induce the transport in vitro of the rat liver precursor of ornithine transcarbamylase (pOTC) into isolated rat liver mitochondria. The accumulation of this precursor at the level of binding to the mitochondrial surface has allowed us to establish that polyamines are involved in the interaction of the precursor with the mitochondrial surface. Transport of a chimeric protein having the signal sequence of pOTC fused to a fragment of the cytosolic protein human arginosuccinate lyase was also induced by polyamines. The sensitivity of the pOTC synthesized in vitro...

...may play a role in modulating the folding of precursors to favour their binding to mitochondria .

...Identifiers--RAT-LIVER MITOCHONDRIA ; PROTEIN IMPORT; CARBAMOYLTRANSFERASE PRECURSOR; MEMBRANE; TRANSLOCATION; STIMULATE; FRACTION; RNA

9/3,K/4 (Item 1 from file: 76)

DIALOG(R)File 76:Life Sciences Collection
(c) 1999 Cambridge Sci Abs. All rts. reserv.

01569137 2701808

Role of polyamines in the transport in vitro of the precursor of ornithine transcarbamylase.

Gonzalez Bosch, C.; Marcote, M.J.; Hernandez Yago, J.
Inst. Invest. Citol. Caja Ahorros Valencia (Cent. Asociado del CSIC),

Amadeo Saboya 4, 46010-Valencia, Spain

BIOCHEM. J. vol. 279, no. 3, pp. 815-820 (1991.)

DOCUMENT TYPE: Journal article LANGUAGE: ENGLISH

SUBFILE: Biochemistry Abstracts Part 3: Amino Acids, Peptides and Proteins

Role of polyamines in the transport in vitro of the precursor of ornithine transcarbamylase.

Polyamines induce the transport in vitro of the rat liver precursor of ornithine transcarbamylase (pOTC) into isolated rat liver mitochondria. The accumulation of this precursor at the level of binding to the mitochondrial surface has allowed us to establish that polyamines are involved in the interaction of the precursor with the mitochondrial surface. Transport of a chimeric protein having the signal sequence of pOTC fused to a fragment of the cytosolic protein human arginosuccinate lyase was also induced by polyamines. The sensitivity of the pOTC

synthesized in vitro...

...may play a role in modulating the folding of precursors to favour their binding to **mitochondria**.

9/3,K/5 (Item 1 from file: 94)

DIALOG(R) File 94:JICST-Eplus

(c)1999 Japan Science and Tech Corp(JST). All rts. reserv.

03396663 JICST ACCESSION NUMBER: 97A0703650 FILE SEGMENT: JICST-E

Pathological elucidation of oxygen stress induced cell death in cell of mitochondrial disease and control of cell death by selective expression of antioxidant enzyme gene in mitochondrion.

YONEDA MAKOTO (1)

(1) Nagoya Univ., Sch. of Med.

Mochida Kinen Zaidan Kenkyu Seika Hokokushu, 1997, VOL.13, PAGE.46-50,

FIG.3, TBL.1, REF.8

JOURNAL NUMBER: X0967AAR

UNIVERSAL DECIMAL CLASSIFICATION: 616.8-09 616.7-09

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

Pathological elucidation of oxygen stress induced cell death in cell of mitochondrial disease and control of cell death by selective expression of antioxidant enzyme gene in mitochondrion.

...ABSTRACT: to introduce mtDNA varied by cell fusion into a special cell system (I) which lacked **mitochondrin** (mt) DNA. The cell death appeared in high-frequent by high-dense oxygen load, when...

...recognized, and the storage of mtDNA mutation seemed to form a vicious circle system. The **signal peptide** of **Ornithine-transcarbamylase** (enzyme of mt) has shifted the gene appeared in a cytoplasm into not selectively.

...DESCRIPTORS: **mitochondrial** gene...

...human (primates...

...**mitochondria** ; ...

...**mitochondrial** encephalomyopathy

...BROADER DESCRIPTORS: **mitochondrial** disease

9/3,K/6 (Item 1 from file: 144)

DIALOG(R) File 144:Pascal

(c) 1999 INIST/CNRS. All rts. reserv.

09870195 PASCAL No.: 92-0072685

Role of polyamines in the transport in vitro of the precursor of ornithine transcarbamylase

GONZALEZ-BOSCH C; MARCOTE M J; HERNANDEZ-YAGO J
CSIC, Caja Ahorros Valencia, inst. investigaciones citologicas, Valencia
46019, Spain

Journal: Biochemical journal : (London. 1984), 1991, 279 (p.3) 815-820

Language: English Summary Language: English

Role of polyamines in the transport in vitro of the precursor of ornithine transcarbamylase

Polyamines induce the transport in vitro of the rat liver precursor of **ornithine transcarbamylase** (pOTC) into isolated rat liver **mitochondria**. The accumulation of this precursor at the level of binding to the **mitochondrial** surface has allowed us to establish that polyamines are involved in the interaction of the precursor with the **mitochondrial** surface. Transport of a chimeric protein having the **signal sequence** of pOTC fused to a fragment of the cytosolic protein **human arginosuccinate**

lyase was also induced by polyamines

English Descriptors: Polyamine; Ornithine carbamoyltransferase; Biological transport; Radiolabelling; HPLC chromatography; In vitro; **Mitochondria**; Liver; Rat

French Descriptors: Polyamine; Ornithine carbamoyltransferase; Transport biologique; Marquage radioisotopique; Chromatographie HPLC; In vitro; **Mitochondrie**; Foie; Rat

9/3,K/7 (Item 1 from file: 434)

DIALOG(R) File 434:SciSearch(R) Cited Ref Sci
(c) 1998 Inst for Sci Info. All rts. reserv.

08990780 Genuine Article#: P8521 No. References: 274

Title: MOLECULAR-BIOLOGY OF STEROID-HORMONE SYNTHESIS

Author(s): MILLER WL

Corporate Source: UNIV CALIF SAN FRANCISCO,DEPT PEDIAT,ROOM 677S/SAN FRANCISCO//CA/94143; UNIV CALIF SAN FRANCISCO,METAB RES UNIT/SAN FRANCISCO//CA/94143

Journal: ENDOCRINE REVIEWS, 1988, V9, N3, P295-318

Language: ENGLISH Document Type: REVIEW, BIBLIOGRAPHY

...Research Fronts: CELLULAR ONCOGENES; CULTURED RAT-THYROID CELLS; C-FOS ONCOGENE; N-MYC GENE)

86-1974 001 (ORNITHINE TRANSCARBAMYLASE DEFICIENCY; MITOCHONDRIAL IMPORT; TARGETING PROTEINS; MAMMALIAN MITOCHONDRIA INVITRO; MOLECULAR-CLONING OF cDNA)

86-2158 001 (2-MU-M CIRCLE OF SACCHAROMYCES-CEREVISIAE; SINGLE YEAST GENE; MITOTIC CHROMOSOME TRANSMISSION; HOMOLOGOUS RECOMBINATION)

86-2714 001 (PROTEIN TRANSLOCATION; SIGNAL SEQUENCE; ENDOPLASMIC-RETICULUM MEMBRANE; NASCENT SECRETORY PROTEINS)

86-3397 001 (POLYCYSTIC OVARIAN DISEASE; 5-ALPHA-REDUCTASE...)

...INSENSITIVITY; IDIOPATHIC HIRSUTISM; ANDROSTANEDIOL GLUCURONIDE)

86-7753 001 (AROMATASE INHIBITORS; ESTROGEN BIOSYNTHESIS; AROMATASE-ACTIVITY IN HUMAN ENDOMETRIAL STROMAL CELLS)

9/3,K/8 (Item 2 from file: 434)

DIALOG(R) File 434:SciSearch(R) Cited Ref Sci
(c) 1998 Inst for Sci Info. All rts. reserv.

08149472 Genuine Article#: H7601 No. References: 29

Title: IMPORT AND PROCESSING OF HUMAN ORNITHINE TRANSCARBAMOYLASE PRECURSOR BY MITOCHONDRIA FROM SACCHAROMYCES-CEREVISIAE

Author(s): CHENG MY; POLLOCK RA; HENDRICK JP; HORWICH AL

Corporate Source: YALE UNIV,SCH MED,DEPT HUMAN GENET,333 CEDAR ST,POB 3333/NEW HAVEN//CT/06510

Journal: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, 1987, V84, N12, P4063-4067

Language: ENGLISH Document Type: ARTICLE

Title: IMPORT AND PROCESSING OF HUMAN ORNITHINE TRANSCARBAMOYLASE PRECURSOR BY MITOCHONDRIA FROM SACCHAROMYCES-CEREVISIAE

Research Fronts: 86-1974 002 (ORNITHINE TRANSCARBAMYLASE DEFICIENCY; MITOCHONDRIAL IMPORT; TARGETING PROTEINS; MAMMALIAN MITOCHONDRIA INVITRO; MOLECULAR-CLONING OF cDNA)

86-2158 001 (2-MU-M CIRCLE OF SACCHAROMYCES-CEREVISIAE; SINGLE YEAST GENE; MITOTIC CHROMOSOME TRANSMISSION; HOMOLOGOUS RECOMBINATION)

86-2714 001 (PROTEIN TRANSLOCATION; SIGNAL SEQUENCE; ENDOPLASMIC-RETICULUM MEMBRANE; NASCENT SECRETORY PROTEINS)

86-6423 001 (PARVALBUMIN EXPRESSION IN MAMMALIAN SKELETAL-MUSCLE...)

9/3,K/9 (Item 3 from file: 434)

DIALOG(R) File 434:SciSearch(R) Cited Ref Sci
(c) 1998 Inst for Sci Info. All rts. reserv.

08129872 Genuine Article#: H5980 No. References: 16

Title: EVIDENCE FOR A SIGNAL PEPTIDE AT THE AMINO-TERMINAL END OF HUMAN MITOCHONDRIAL ALDEHYDE DEHYDROGENASE

Author(s): BRAUN T; BOBER E; SINGH S; AGARWAL DP; GOEDDE HW

Corporate Source: UNIV HAMBURG, INST HUMAN GENET, BUTENFELD 32/D-2000 HAMBURG 54//FED REP GER/

Journal: FEBS LETTERS, 1987, V215, N2, P233-236

Language: ENGLISH Document Type: ARTICLE

Title: EVIDENCE FOR A SIGNAL PEPTIDE AT THE AMINO-TERMINAL END OF HUMAN MITOCHONDRIAL ALDEHYDE DEHYDROGENASE

...Research Fronts: OF NEWCASTLE-DISEASE VIRUS; NUCLEOTIDE-SEQUENCE ANALYSIS; TRANSCRIPTION OF GENES; cDNA CLONE)

86-1974 001 (ORNITHINE TRANSCARBAMYLASE DEFICIENCY; MITOCHONDRIAL IMPORT; TARGETING PROTEINS; MAMMALIAN MITOCHONDRIA INVITRO; MOLECULAR-CLONING OF cDNA)

86-5975 001 (ALDEHYDE DEHYDROGENASE; ALCOHOL METABOLISM; EFFECT OF ETHANOL)

9/3,K/10 (Item 4 from file: 434)

DIALOG(R) File 434:SciSearch(R) Cited Ref Sci

(c) 1998 Inst for Sci Info. All rts. reserv.

07628212 Genuine Article#: E6679 No. References: 237

Title: USING RECOMBINANT DNA TECHNIQUES TO STUDY PROTEIN TARGETING IN THE EUKARYOTIC CELL

Author(s): GAROFF H

Corporate Source: EUROPEAN MOLEC BIOL LAB, POSTFACH 102209/D-6900 HEIDELBERG//FED REP GER/

Journal: ANNUAL REVIEW OF CELL BIOLOGY, 1985, V1, P403-445

Language: ENGLISH Document Type: REVIEW, BIBLIOGRAPHY

Research Fronts: 86-2714 006 (PROTEIN TRANSLOCATION; SIGNAL SEQUENCE; ENDOPLASMIC-RETICULUM MEMBRANE; NASCENT SECRETORY PROTEINS)

86-0127 004 (MURINE HEMATOPOIETIC PROGENITOR CELLS FOLLOWING RETROVIRAL TRANSFER; RETROVIRUS VECTORS; EXPRESSION OF HUMAN ADENOSINE-DEAMINASE)

86-1674 002 (TRANSCRIPTIONAL ENHANCER; VIRAL REGULATORY ELEMENTS; ADENOVIRUS E1A GENE; REGULATION OF...)

...MEDIATED ENDOCYTOSIS; INTRACELLULAR PH IN LIGAND INTERNALIZATION; INFLUENZA-VIRUS HEMAGGLUTININ; ENDOCYTIC PATHWAY)

86-1974 002 (ORNITHINE TRANSCARBAMYLASE DEFICIENCY; MITOCHONDRIAL IMPORT; TARGETING PROTEINS; MAMMALIAN MITOCHONDRIA INVITRO; MOLECULAR-CLONING OF cDNA)

86-6970 002 (SV40 LARGE T-ANTIGEN; NUCLEAR LOCATION SIGNAL...)

...DENSITY LIPOPROTEIN RECEPTOR; NATIVE LIPOPROTEINS; FAMILIAL HYPERCHOLESTEROLEMIA; MOUSE MACROPHAGES; PATHOGENESIS OF ATHEROSCLEROSIS)

86-1347 001 (HUMAN MAJOR HISTOCOMPATIBILITY COMPLEX; HLA CLASS-II ANTIGENS; DNA RESTRICTION FRAGMENT LENGTH POLYMORPHISMS; INSULIN-DEPENDENT DIABETES...)

...IN MAMMALIAN-CELLS; SV40 MUTANTS)

86-7866 001 (MOUSE MAMMARY-TUMOR CELLS; DNA TRANSFECTION; TRANSFECTED HUMAN -FIBROBLASTS; VIRAL VECTORS; ENHANCER FUNCTION; SINGLE PLASMID; GENETIC COMPLEMENTATION)

86-8059 001 (SIGNAL SEQUENCE; PROTEIN EXPORT; PERTUSSIS TOXIN GENE; HERPES-SIMPLEX VIRUS TYPE-1)

9/3,K/11 (Item 5 from file: 434)

- DIALOG(R) File 434:SciSearch(R) Cited Ref Sci
(c) 1998 Inst for Sci Info All rts. reserv.

07628208 Genuine Article#: E6679 No. References: 349

Title: CELL-SURFACE POLARITY IN EPITHELIA

Author(s): SIMONS K; FULLER SD

Corporate Source: EUROPEAN MOLEC BIOL LAB, POSTFACH 102209/D-6900
HEIDELBERG//FED REP GER/

Journal: ANNUAL REVIEW OF CELL BIOLOGY, 1985, V1, P243-288

Language: ENGLISH Document Type: REVIEW, BIBLIOGRAPHY

...Research Fronts: INTRACELLULAR PH IN LIGAND INTERNALIZATION;
INFLUENZA-VIRUS HEMAGGLUTININ; ENDOCYTIC PATHWAY)

86-2714 004 (PROTEIN TRANSLOCATION; SIGNAL SEQUENCE ;
ENDOPLASMIC-RETICULUM MEMBRANE; NASCENT SECRETORY PROTEINS)

86-3897 003 (TIGHT JUNCTIONS; MDCK CELLS; CULTURED KIDNEY...)

...001 (ASIALOGLYCOPROTEIN RECEPTOR; RAT ALVEOLAR MACROPHAGE LECTIN;
RECEPTOR-MEDIATED ENDOCYTOSIS; HEPATIC LECTINS)

86-1974 001 (ORNITHINE TRANSCARBAMYLASE DEFICIENCY; MITOCHONDRIAL
IMPORT; TARGETING PROTEINS; MAMMALIAN MITOCHONDRIA INVITRO;
MOLECULAR-CLONING OF cDNA)

86-2433 001 (ULTRASTRUCTURE OF THE FULL-TERM SHARK YOLK...)

...TRANSFER PROTEINS; REVERSED MICELLES; MEMBRANE FLUIDITY; LIPID
DEPENDENCE)

86-6160 001 (FIBRONECTIN RECEPTOR FUNCTION; ADULT HUMAN VASCULAR
ENDOTHELIAL-CELL ATTACHMENT; GINGIVAL FIBROBLASTS; CYTOSKELETAL
REORGANIZATION; FIBROBLAST ADHESION)

86-6485 001 (BACTERIORHODOPSIN PHOTOCYCLE...)

9/3,K/12 (Item 6 from file: 434)

DIALOG(R) File 434:SciSearch(R) Cited Ref Sci

(c) 1998 Inst for Sci Info. All rts. reserv.

07473021 Genuine Article#: D6641 No. References: 44

**Title: DEMONSTRATION OF POST-TRANSLATIONAL SECRETION OF HUMAN
PLACENTAL-LACTOGEN BY A MAMMALIAN INVITRO TRANSLATION SYSTEM**

Author(s): CAULFIELD MP; DUONG LT; ROSENBLATT M

Corporate Source: MERCK SHARP & DOHME RES LABS, PARATHYROID HORMONE
LAB, W26-208/W POINT//PA/19486

Journal: JOURNAL OF BIOLOGICAL CHEMISTRY, 1986, V261, N24, P953-956

Language: ENGLISH Document Type: NOTE

**Title: DEMONSTRATION OF POST-TRANSLATIONAL SECRETION OF HUMAN
PLACENTAL-LACTOGEN BY A MAMMALIAN INVITRO TRANSLATION SYSTEM**

Research Fronts: 86-2714 006 (PROTEIN TRANSLOCATION; SIGNAL SEQUENCE ;
ENDOPLASMIC-RETICULUM MEMBRANE; NASCENT SECRETORY PROTEINS)

86-1974 002 (ORNITHINE TRANSCARBAMYLASE DEFICIENCY; MITOCHONDRIAL
IMPORT; TARGETING PROTEINS; MAMMALIAN MITOCHONDRIA INVITRO;
MOLECULAR-CLONING OF cDNA)

86-1382 001 (HEMAGGLUTININ NEURAMINIDASE GENE OF NEWCASTLE-DISEASE
VIRUS...)

9/3,K/13 (Item 7 from file: 434)

DIALOG(R) File 434:SciSearch(R) Cited Ref Sci

(c) 1998 Inst for Sci Info. All rts. reserv.

07416657 Genuine Article#: D2004 No. References: 278

Title: EXTRALYSOSOMAL PROTEIN-DEGRADATION

Author(s): PONTREMOLI S; MELLONI E

Corporate Source: UNIV GENOA, INST BIOL CHEM/I-16132 GENOA//ITALY/

Journal: ANNUAL REVIEW OF BIOCHEMISTRY, 1986, V55, P455-481

Language: ENGLISH Document Type: REVIEW, BIBLIOGRAPHY

...Research Fronts: IN THE RAT HYPOTHALAMUS; PROENKEPHALIN-DERIVED

PEPTIDES; PROENKEPHALIN GENE; LOCALIZATION OF NEUROPEPTIDES)
86-1974 003 (**ORNITHINE TRANSCARBAMYLASE DEFICIENCY**; MITOCHONDRIAL
IMPORT; TARGETING PROTEINS; MAMMALIAN MITOCHONDRIA INVITRO;
MOLECULAR-CLONING OF cDNA)
86-2714 002 (PROTEIN TRANSLOCATION; SIGNAL SEQUENCE;
ENDOPLASMIC-RETICULUM MEMBRANE; NASCENT SECRETORY PROTEINS)
86-6777 002 (PROTEIN KINASE-C; PHOSPHOLIPID-DEPENDENT PROTEIN...)

...4899 001 (PHORBOL ESTER ACTIVATION OF PROTEIN KINASE-C; CYTOSOLIC FREE
CALCIUM; PHOSPHOINOSITIDE TURNOVER IN **HUMAN**-NEUTROPHILS;
PHORBOL-MYRISTATE ACETATE STIMULATION)
86-6283 001 (CYTOSOLIC FREE CALCIUM; GRANULE RELEASE IN **HUMAN**
-PLATELETS; CYTOPLASMIC IONIZED CALCIUM-CONCENTRATION IN PLATELETS;
PLATELET ACTIVATION)
86-7877 001 (SMALL SUBUNIT OF...)

9/3,K/14 (Item 8 from file: 434)
DIALOG(R) File 434:SciSearch(R) Cited Ref Sci
(c) 1998 Inst for Sci Info. All rts. reserv.

07401440 Genuine Article#: D1613 No. References: 159
Title: MOLECULAR AND CELL BIOLOGY OF LIPOPROTEIN BIOSYNTHESIS
Author(s): DRISCOLL DM; GETZ GS
Corporate Source: IMPERIAL CANC RES FUND/POTTERS BAR EN6 3LD/HERTS/ENGLAND/
; UNIV CHICAGO, DEPT PATHOL/CHICAGO//IL/60637; UNIV CHICAGO, DEPT BIOCHEM
& MOLEC BIOL/CHICAGO//IL/60637; UNIV CHICAGO, DEPT MED/CHICAGO//IL/60637
Journal: METHODS IN ENZYMOLOGY, 1986, V128, P41-70
Language: ENGLISH Document Type: REVIEW, BIBLIOGRAPHY

...Research Fronts: IN THE 5'-FLANKING REGION; HISTONE H-1)
86-4041 004 (APOLIPOPROTEIN GENES; DNA POLYMORPHISM; **HUMAN**-LIVER
FATTY-ACID BINDING-PROTEIN GENE)
86-1382 003 (HEMAGGLUTININ NEURAMINIDASE GENE OF NEWCASTLE-DISEASE...
...SMALL NUCLEAR RNAs; CLEAVAGE AT THE 5' SPLICE SITE)
86-6419 002 (APOLIPOPROTEIN-B OF **HUMAN**-PLASMA LOW-DENSITY
LIPOPROTEINS; APOLIPOPROTEIN B-100; LIPOPROTEIN METABOLISM; AMINO-ACID
SEQUENCE OF **HUMAN** APOLIPOPROTEIN-B-100)
86-0721 001 (CACLITONIN GENE-RELATED PEPTIDE; RAT CENTRAL
NERVOUS-SYSTEM; SUBSTANCE...
...MELANOGASTER; CHICKEN MYOSIN HEAVY-CHAIN FAMILY; TISSUE-SPECIFIC
EXPRESSION; MESSENGER-RNA PRECURSORS)
86-1974 001 (**ORNITHINE TRANSCARBAMYLASE DEFICIENCY**; MITOCHONDRIAL
IMPORT; TARGETING PROTEINS; MAMMALIAN MITOCHONDRIA INVITRO;
MOLECULAR-CLONING OF cDNA)
86-2714 001 (PROTEIN TRANSLOCATION; SIGNAL SEQUENCE;
ENDOPLASMIC-RETICULUM MEMBRANE; NASCENT SECRETORY PROTEINS)
86-3811 001 (SITE-DIRECTED MUTAGENESIS; PROTEIN ENGINEERING OF...)

9/3,K/15 (Item 9 from file: 434)
DIALOG(R) File 434:SciSearch(R) Cited Ref Sci
(c) 1998 Inst for Sci Info. All rts. reserv.

07152780 Genuine Article#: A4261 No. References: 56
**Title: MOLECULAR-CLONING OF HUMAN ORNITHINE AMINOTRANSFERASE
MESSENGER-RNA**
Author(s): INANA G; TOTSUKA S; REDMOND M; DOUGHERTY T; NAGLE J; SHIONO T;
OHURA T; KOMINAMI E; KATUNUMA N
Corporate Source: NEI,OPHTHALM PATHOL LAB/BETHESDA//MD/20892; NEI,VIS RES
LAB/BETHESDA//MD/20892; UNIV TOKUSHIMA,SCH MED/TOKUSHIMA 770//JAPAN//;
GENEX CORP,DEPT BIOCHEM GENET/GAITHERSBURG//MD/20877
Journal: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED
STATES OF AMERICA, 1986, V83, N5, P1203-1207
Language: ENGLISH Document Type: ARTICLE

Title: MOLECULAR-CLONING OF HUMAN ORNITHINE AMINOTRANSFERASE MESSENGER-RNA
...Research Fronts: OF NEWCASTLE-DISEASE VIRUS; NUCLEOTIDE-SEQUENCE ANALYSIS; TRANSCRIPTION OF GENES; cDNA CLONE)
86-1974 002 (ORNITHINE TRANSCARBAMYLASE DEFICIENCY; MITOCHONDRIAL IMPORT; TARGETING PROTEINS; MAMMALIAN MITOCHONDRIA INVITRO; MOLECULAR-CLONING OF cDNA)
86-6535 002 (PARTIAL AMINO-ACID SEQUENCE; BOVINE MITOCHONDRIAL F1-ATPASE; EPIDERMAL GROWTH-FACTOR; GUINEA-PIG COPEPTIN; PROTEIN-CHEMICAL IDENTIFICATION; SINGLE GENE)
86-8517 002 (cDNA SEQUENCE; GENES FOR THE PROTEIN ANTIGENS; MOLECULAR-CLONING OF HUMAN ORNITHINE AMINOTRANSFERASE MESSENGER-RNA)
86-2283 001 (PRE-MESSENGER RNA SPLICING INVITRO; SMALL NUCLEAR RNAs; CLEAVAGE AT THE 5' SPLICE SITE)
86-2714 001 (PROTEIN TRANSLOCATION; SIGNAL SEQUENCE ; ENDOPLASMIC-RETICULUM MEMBRANE; NASCENT SECRETORY PROTEINS)
86-3022 001 (CIRCUMSPOROZOITE PROTEIN OF THE HUMAN MALARIA PARASITE PLASMODIUM-FALCIPARUM; POTENTIAL VACCINE ANTIGENS; ANTIGEN PRESENT IN ALL BLOOD STAGES)

9/3,K/16 (Item 10 from file: 434)
DIALOG(R) File 434:SciSearch(R) Cited Ref Sci
(c) 1998 Inst for Sci Info. All rts. reserv.

07150735 Genuine Article#: A3971 No. References: 56
Title: SECRETION IN YEAST - RECONSTITUTION OF THE TRANSLOCATION AND GLYCOSYLATION OF ALPHA-FACTOR AND INVERTASE IN A HOMOLOGOUS CELL-FREE SYSTEM
Author(s): ROTHBLATT JA; MEYER DI
Corporate Source: EUROPEAN MOLEC BIOL LAB,CELL BIOL PROGRAM/D-6900 HEIDELBERG//FED REP GER/
Journal: CELL, 1986, V44, N4, P619-628
Language: ENGLISH Document Type: ARTICLE

Research Fronts: 86-2714 003 (PROTEIN TRANSLOCATION; SIGNAL SEQUENCE ; ENDOPLASMIC-RETICULUM MEMBRANE; NASCENT SECRETORY PROTEINS)
86-3454 003 (YEAST SACCHAROMYCES-CEREVISIAE; PROTEIN SECRETION; ALPHA-FACTOR PHEROMONE RECEPTOR)
86-1974 001 (ORNITHINE TRANSCARBAMYLASE DEFICIENCY; MITOCHONDRIAL IMPORT; TARGETING PROTEINS; MAMMALIAN MITOCHONDRIA INVITRO; MOLECULAR-CLONING OF cDNA)
86-5181 001 (N-LINKED OLIGOSACCHARIDES; SITES OF GLYCOSYLATION; HUMAN FIBROBLAST COLLAGENASE INHIBITOR; STRUCTURAL-ANALYSIS OF THE CARBOHYDRATE SIDE-CHAINS)

9/3,K/17 (Item 11 from file: 434)
DIALOG(R) File 434:SciSearch(R) Cited Ref Sci
(c) 1998 Inst for Sci Info. All rts. reserv.

05797558 Genuine Article#: ST805 No. References: 51
Title: STRUCTURE AND EXPRESSION OF A COMPLEMENTARY-DNA FOR THE NUCLEAR CODED PRECURSOR OF HUMAN MITOCHONDRIAL ORNITHINE TRANSCARBAMYLASE
Author(s): HORWICH AL; FENTON WA; WILLIAMS KR; KALOUSEK F; KRAUS JP; DOOLITTLE RF; KONIGSBERG W; ROSENBERG LE
Corporate Source: YALE UNIV,SCH MED,DEPT HUMAN GENET/NEW HAVEN//CT/06510; YALE UNIV,SCH MED,DEPT MOLEC BIOPHYS & BIOCHEM/NEW HAVEN//CT/06510; UNIV CALIF SAN DIEGO,DEPT CHEM/LA JOLLA//CA/92093
Journal: SCIENCE, 1984, V224, N4653, P1068-1074
Language: ENGLISH Document Type: ARTICLE

Title: STRUCTURE AND EXPRESSION OF A COMPLEMENTARY-DNA FOR THE NUCLEAR CODED PRECURSOR OF HUMAN MITOCHONDRIAL ORNITHINE TRANSCARBAMYLASE
Research Fronts: 84-0901 001 (STRUCTURE AND SEQUENCE ARRANGEMENT OF

MITOCHONDRIAL DNA IN YEAST AND OTHER CELLS)
84-1503 001 (GENE EXPRESSION, SIGNAL SEQUENCE ANALYSIS, SYNTHESIS
SITE AND OTHER REGULATION FACTORS IN PROTEIN PROCESSING AND TRANSPORT
IN ESCHERICHIA-COLI...
...OF THE REGULATION OF GENE TRANSCRIPTION AND EXPRESSION)
84-4464 002 (SYNTHESIS AND TRANSPORT OF **MITOCHONDRIAL** PROTEINS IN
YEAST AND OTHER ENERGY-PRODUCING ORGANISMS)
84-4643 002 (EXPRESSION OF GENES TRANSFERRED...
?

08/765244
Kaff 09-16-99

=> s m()maleimido()benzoyl()n()hydroxy()succinimide()ester

120594 M
629 MALEIMIDO
332532 BENZOYL
3016943 N
2142257 HYDROXY
3105 SUCCINIMIDE
2983231 ESTER
L1 1 M (W) MALEIMIDO (W) BENZOYL (W) N (W) HYDROXY (W) SUCCINIMIDE (W) ESTER

=> d 11

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 1999 ACS

RN 58626-38-3 REGISTRY

CN 1H-Pyrrole-2,5-dione,
1-[3-[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]phenyl
]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN m-Maleimidobenzoic acid N-hydroxysuccinimide ester

CN **m-Maleimidobenzoyl N-hydroxysuccinimide ester**

CN m-Maleimidobenzoyl-N-hydroxysuccinimide

CN Mmbs

CN N-(m-Maleimidobenzoyloxy)succinamide

CN N-(m-Maleimidobenzoyloxy)succinimide

FS 3D CONCORD

DR 64712-18-1

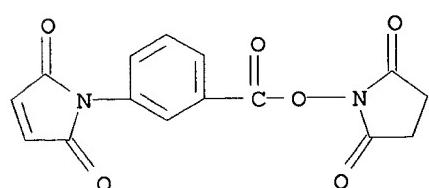
MF C15 H10 N2 O6

LC STN Files: AGRICOLA, AIDSLINE, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA,
CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, EMBASE,

IFICDB,
IFIPAT, IFIUDB, MEDLINE, MSDS-OHS, PROMT, TOXLIT, USPATFULL
(*File contains numerically searchable property data)

Other Sources: EINECS**

(**Enter CHEMLIST File for up-to-date regulatory information)



169 REFERENCES IN FILE CA (1967 TO DATE)

35 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

170 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> file caplus

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FILE LAST UPDATED: 16 Sep 1999 (19990916/ED)

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=> s 58626-38-3

REGISTRY INITIATED

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Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L3 170 L2

=> s 12 and (cross()link? or crosslink?)

170 L2
293974 CROSS
232142 LINK?
20319 CROSS(W)LINK?
179842 CROSSLINK?
L4 56 L2 AND (CROSS(W)LINK? OR CROSSLINK?)

=> s 14 and peptid? and nucl?

294456 PEPTID?
1233545 NUCL?
L5 2 L4 AND PEPTID? AND NUCL?

LS ANSWER 1 OF 2 CAPLUS COPYRIGHT 1999 ACS
 AN 1994:625876 CAPLUS
 DN 121:225876
 TI Preparation of photoprotein conjugates and methods of use thereof
 IN Stults, Nancy L.
 PA Sealite Sciences, Inc., USA
 SO PCT Int. Appl., 34 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C12Q001-00
 ICS C12Q001-66
 CC 9-14 (Biochemical Methods)
 Section cross-reference(s): 2
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9418342	A1	19940818	WO 1994-US1387	19940204
	W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, VN RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9461718	A1	19940829	AU 1994-61718	19940204
	EP 683822	A1	19951129	EP 1994-908734	19940204
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT,				
SE	JP 08506897	T2	19960723	JP 1994-518303	19940204
	IL 108607	A1	19981206	IL 1994-108607	19940209
PRAI	US 1993-17116	19930212			
	WO 1994-US1387	19940204			
AB	The present invention encompasses a method of synthesis of conjugates of photoproteins that retain all or a substantial portion of the luminescent activity of underivatized photoprotein. According to the present invention photoproteins may be conjugated with a variety of binding reagents including streptavidin/avidin, glycoproteins, lectins, hormones, antigens, drugs, antibodies and antigen binding fragments thereof, or any other selectively bindable reagent by chem. crosslinking means. The present invention also encompasses conjugates produced by this method,				
	and methods of use of such conjugates. Aequorin was activated with 2-iminothiolane and then conjugated with sulfo-SMCC-activated monoclonal antibody to human TSH. The conjugate was used in an immunoassay for TSH.				
ST	photoprotein conjugate binding reagent prep; aequorin antibody conjugation TSH immunoassay				
IT	Ostracoda				
	Pelagia	(binding reagents conjugates with bioluminescent proteins of)			
IT	Proteins, specific or class				
	RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)				
	(bioluminescent, conjugates with binding reagents; photoprotein conjugates prep. and use as reagents in luminescence binding assays)				
IT	Aequorins				
	RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)				
	(conjugates with binding reagents; photoprotein conjugates prep. and use as reagents in luminescence binding assays)				
IT	Pharmaceuticals				
	(conjugates with photoproteins; photoprotein conjugates prep. and use				

as reagents in luminescence binding assays)

IT Agglutinins and Lectins

Antibodies

Antigens

Hormones

Ligands

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(conjugates with photoproteins; photoprotein conjugates prepn. and use as reagents in luminescence binding assays)

IT Immunoassay

Nucleic acid hybridization
(photoprotein conjugates prepn. and use as reagents in luminescence binding assays)

IT Aequorins

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(apo-, conjugates with binding reagents; photoprotein conjugates prepn.
and use as reagents in luminescence binding assays)

IT Proteins, specific or class

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(berovins, apo-, conjugates with binding reagents; photoprotein conjugates prepn. and use as reagents in luminescence binding assays)

IT Proteins, specific or class

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(berovins, conjugates with binding reagents; photoprotein conjugates prepn. and use as reagents in luminescence binding assays)

IT Avidins

Deoxyribonucleic acids

Enzymes

Glycoproteins, specific or class

Nucleic acids

Receptors

Ribonucleic acids

Peptides, preparation

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(conjugates, with photoproteins; photoprotein conjugates prepn. and use as reagents in luminescence binding assays)

use Spectrochemical analysis
(luminescence, photoprotein conjugates prepn. and use as reagents in luminescence binding assays)

IT Proteins, specific or class

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(mnemiopsins, apo-, conjugates with binding reagents; photoprotein conjugates prepn. and use as reagents in luminescence binding assays)

IT Proteins, specific or class

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(mnemiopsins, conjugates with binding reagents; photoprotein conjugates prepn. and use as reagents in luminescence binding assays)

IT Proteins, specific or class

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(obelins, conjugates with binding reagents; photoprotein conjugates prepn. and use as reagents in luminescence binding assays)

IT Proteins, specific or class

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(obelins, apo-, conjugates with binding reagents; photoprotein

conjugates prepn. and use as reagents in luminescence binding assays)
 IT Nucleotides, preparation
 RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST
 (Analytical study); PREP (Preparation); USES (Uses)
 (oligo-, conjugates, with photoproteins; photoprotein conjugates
 prepn.
 and use as reagents in luminescence binding assays)
 IT Proteins, specific or class
 RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST
 (Analytical study); PREP (Preparation); USES (Uses)
 (photo-, conjugates with binding reagents; photoprotein conjugates
 prepn. and use as reagents in luminescence binding assays)
 IT 51-48-9, Thyroxine, analysis 9002-71-5, TSH
 RL: ANT (Analyte); ANST (Analytical study)
 (photoprotein conjugates prepn. and use as reagents in luminescence
 binding assays)
 IT 51-48-9D, Thyroxine, aequorin conjugates
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (photoprotein conjugates prepn. and use as reagents in luminescence
 binding assays)
 IT 9013-20-1DP, Streptavidin, conjugates with photoprotein 9014-00-0DP,
 Luciferase, conjugates with binding reagents 96827-88-2DP, Pholasin,
 conjugates with binding reagents
 RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST
 (Analytical study); PREP (Preparation); USES (Uses)
 (photoprotein conjugates prepn. and use as reagents in luminescence
 binding assays)
 IT 4856-87-5 6539-14-6, 2-Iminothiolane 6953-60-2, S-
 Acetylmercaptosuccinic anhydride 7803-49-8, Hydroxylamine, reactions
 15209-14-0, Bis(maleimido) methyl ether 42014-51-7 55750-63-5
58626-38-3 **58626-38-3D**, sulfonated 64987-85-5, SMCC
 68181-17-9, N-Succinimidyl-3-(2-pyridyldithio)propionate 72252-96-1
 72252-96-1D, sulfonated 76931-93-6 79886-55-8 79886-55-8D,
 sulfonated 103708-09-4 112241-19-7
 RL: RCT (Reactant)
 (photoprotein conjugates prepn. and use as reagents in luminescence
 binding assays)

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 1999 ACS
 AN 1990:494359 CAPLUS
 DN 113:94359
 TI Preparation and use of nucleic acid probes containing a
 conjugated peptide
 IN Ramachandran, Kuzhalmannam L.; Cate, Richard L.
 PA Biogen, Inc., USA
 SO PCT Int. Appl., 61 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C12Q001-68
 CC 9-2 (Biochemical Methods)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8912110	A1	19891214	WO 1989-US2363	19890531
	W: AU, JP				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	US 5109124	A	19920428	US 1989-306798	19890202
	AU 8938455	A1	19900105	AU 1989-38455	19890531
	EP 440647	A1	19910814	EP 1989-907476	19890531
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	JP 03504801	T2	19911024	JP 1989-507114	19890531
PRAI	US 1988-200930	19880601			
	US 1989-306798	19890202			
	WO 1989-US2363	19890531			
OS	MARPAT 113:94359				

5'-TTGCTGGTATATCATCTGCCTTTTCATG I

Lys-Tyr-Gly-Lys-Asn-Ser-Lys-Pro-Arg-Lys-Glu-Thr-Cys II

- AB Polynucleotide probes are provided which have a label, e.g. a cysteine-contg. **peptide** conjugate, bearing >1 signaling moieties. The label is attached to the probe by the reaction of an amino- and sulfhydryl-reactive heterobifunctional reagent with the probe and label; the reaction results in the oxidn. of the sulfhydryl group of the label. The label may be attached to the 5' terminus of the probe, or to modified bases of the probe. The probes constructed according to the invention are useful e.g. in detecting target sequences in DNA. The signal-contg. label may also be attached to e.g. an antibody for antigen detection. Thus, 5'-TTGCTGGTATATCATCTGCCTTTTCATG [I complementary to a portion of the gene coding for human tissue plasminogen activator (tPA)] was synthesized, reacted with hexamethylenediamine to aminoalkylate the 5'-hydroxyl group, and conjugated to the synthetic **peptide** label Lys-Tyr-Gly-Lys-Asn-Ser-Lys-Pro-Arg-Lys-Glu-Thr-Cys via reaction with a succinimidyl 4-(N-maleimidomethyl)cyclohexane-1-carboxylate linker. The labeled probes were biotinylated, purified and used in hybridization assays to detect DNA sequences prepnd. from a tPA-contg. plasmid. When filters were washed using high-stringency conditions, 10 pg of target DNA could be detected with colorimetric detection techniques. I, which had a GC content of 37%, produced negligible background compared to other probes having a higher GC content. Use of the invention in labeling a monoclonal antibody to lipocortin-1 for immunochem. lipocortin-1 detection, in polymerase chain reaction technol., and in detection of human genomic DNA sequences is also described. Use of a dioxetan deriv. as a chemiluminescent substrate for hybridization assays is disclosed. A method for isolation of DNA from a cell suspension is described.
- ST nucleic acid hybridization probe conjugate prepn; monoclonal antibody **peptide** conjugate lipocortin detn; **peptide** conjugate nucleic acid hybridization probe; human tissue plasminogen activator gene probe
- IT Cell
(DNA isolation from suspension of)
- IT Antibodies
Antigens
Toxins
RL: ANST (Analytical study)
(antisense nucleic acid probe conjugates with, for cell ingestion, therapeutics in relation to)
- IT Therapeutics
(antisense nucleic acid probe with conjugated **peptide** as agent for, of cell)
- IT Deoxyribonucleic acid formation
(by polymerase chain reaction, nucleic acid hybridization probes with conjugated **peptide** in)
- IT Gene and Genetic element, animal
RL: ANST (Analytical study)
(for tissue plasminogen activator of human, hybridization probe contg. **peptide** conjugate for)
- IT Avidins
RL: SPN (Synthetic preparation); PREP (Preparation)
(in nucleic acid hybridization probe prepn., **peptide** conjugate in relation to)
- IT Fluorescent substances

(in **nucleic** acid hybridization probe with **peptide**
conjugate prepn., as signalling moiety)

IT Enzymes
Radioelements, biological studies
RL: SPN (Synthetic preparation); PREP (Preparation)
(in **nucleic** acid hybridization probe with **peptide**
conjugate prepn., as signalling moiety)

IT Deoxyribonucleic acids
RL: PROC (Process)
(isolation of, from cell suspension)

IT Amino group
(**nucleic** acid probe linkage group attached to, at 5' terminus
of probe)

IT Amination
(of oligonucleotide, in **nucleic** acid hybridization probe
prepn.)

IT Mercapto group
(of **peptide**, in **nucleic** acid hybridization probe
prepn.)

IT Deoxyribonucleic acid sequences
(of probes with conjugated **peptides**)

IT Oxidation
(of sulfhydryl group of **peptide** label, in **nucleic**
acid hybridization probe prepн.)

IT **Nucleic** acid hybridization
(**peptide**-conjugated probe prepн. for)

IT Hormones
RL: ANST (Analytical study)
(**peptides**, antisense **nucleic** acid probe conjugates
with, for cell ingestion, therapeutics in relation to)

IT Cell **nucleus**
(sepn. of, in DNA isolation from cell suspension)

IT Plasmid and Episome
(with human tissue plasminogen activator DNA, hybridization probe
contg. **peptide** label for)

IT Reaction
(amplification, **peptide**-label contg. **nucleic** acid
probe in)

IT Detergents
(anionic, in DNA isolation from cell suspension)

IT Lipocortins
RL: ANT (Analyte); ANST (Analytical study)
(annexins I, detn. of, biotinylated and **peptide**-conjugated
monoclonal antibody for)

IT Luminescent substances
(chemi-, **nucleic** acid hybridization assay prodn. of,
dioxetane deriv. in relation to)

IT **Peptides**, compounds
RL: SPN (Synthetic preparation); PREP (Preparation)
(conjugates, with oligonucleotides, in **nucleic** acid
hybridization probe prepн., cysteine residue in relation to)

IT Amines, reactions
RL: SPN (Synthetic preparation); PREP (Preparation)
(di-, oligonucleotide deriv. reaction with, in **nucleic** acid
hybridization probe prepн.)

IT Crosslinking agents
(heterobifunctional, amino- and sulfhydryl-reactive, in **nucleic**
acid hybridization probe prepн.)

IT Antibodies
RL: ANST (Analytical study)
(monoclonal, to lipocortin-1, biotinylated and **peptide**
-conjugated, for lipocortin-1 detn.)

IT Detergents
(nonionic, in DNA isolation from cell suspension)

IT **Nucleotides**, polymers
RL: SPN (Synthetic preparation); PREP (Preparation)

(poly-, conjugates, with **peptides**, prepn. of, for
nucleic acid hybridization probes)

IT 58626-38-3 649-82-2 83306-17-6 128906-09- [REDACTED] 128906-10-5
RL: ANST (Analytical study)
(as bifunctional linking agent, in **nucleic** acid hybridization probe prepn., **peptide** conjugate in relation to)

IT 128280-05-7 128280-06-8
RL: ANST (Analytical study)
(as polymerase chain reaction primer)

IT 128400-39-5DP, oligonucleotide conjugates
RL: SPN (Synthetic preparation); PREP (Preparation)
(hybridization probe for human tissue plasminogen activator DNA, prepn.
of)

IT 302-95-4 9016-45-9, NP 40 25155-30-0, Sodium dodecylbenzene sulfonate
RL: ANST (Analytical study)
(in DNA isolation from cell suspension)

IT 6788-84-7D, Dioxetane, derivs. 122341-56-4
RL: ANST (Analytical study)
(in **nucleic** acid hybridization assay, chemiluminescent product formation in relation to)

IT 58-85-5, Biotin 9013-20-1, Streptavidin 13395-35-2
RL: ANST (Analytical study)
(in **nucleic** acid hybridization probe prepn., **peptide** conjugate in relation to)

IT 91-64-5, Coumarin
RL: ANST (Analytical study)
(in **nucleic** acid hybridization probe with **peptide** conjugate prepn., as signalling moiety)

IT 124-09-4, 1,6-Hexanediamine, reactions
RL: ANST (Analytical study)
(oligonucleotide deriv. reaction with, in **nucleic** acid hybridization probe prepn.)

IT 530-62-1, Carbonyldiimidazole
RL: ANST (Analytical study)
(oligonucleotide reaction with, in **nucleic** acid hybridization probe prepn.)

IT 52-90-4, L-Cysteine, biological studies
RL: BIOL (Biological study)
(**peptide** conjugate contg. oxidized sulphydryl group of, in **nucleic** acid hybridization probe)

IT 108423-15-0DP, biotinylated conjugates 128280-10-4DP, biotinylated **peptide** conjugates 128280-26-2DP, biotinylated conjugates 128280-27-3DP, biotinylated conjugates 128280-38-6DP, biotinylated conjugates 128280-38-6DP, biotinylated **peptide** conjugates 128302-12-5DP, biotinylated **peptide** conjugates
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as hybridization probe for gene of human tissue plasminogen activator)

IT 105913-11-9, Plasminogen activator
RL: ANST (Analytical study)
(tissue, gene for, of human, hybridization probe contg. **peptide** conjugate for)